

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of Justin Crank, et al.

Group Art Unit: 3747 (Anticipated)

Application No.: Continuation of 09/747,157, filed December 21, 2000

Examiner: Hyder Ali (Anticipated)

Filed: Herewith

Docket No.: 12013/61102

For: INFUSION AND DEVICES AND METHOD

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 CFR § 1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom. The filing of this Information Disclosure Statement and the enclosed PTO Form No. 1449, shall not be construed as an admission that the information cited is prior art, or is considered to be material to patentability as defined in 37 C.F.R. § 1.56(b). The paragraphs marked below are applicable.

☐ 1. This Information Disclosure Statement is being filed (a) within three months of the filing date of a national application other than a continued prosecution application under 37 C.F.R. §1.53(d), (b) within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application, (c) before the mailing date of a first Office Action on the merits in the present application, OR (d) before the mailing of a first office action after filing of a request for continued examination. No certification or fee is required.

☐ 2. This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on

the merits, but before the mailing date of a final action, Notice of Allowance, or any action that otherwise closes prosecution.


- ☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).
- ☐ b. I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).
- ☐ c. Please debit Deposit Account No. 11-0600 in the amount of \$180.00 in payment of the fee under 37 CFR §1.17(p) to ensure consideration of the disclosed information. Two duplicate copies of this paper are attached. 37 CFR §1.97(c)(2).
- ☐ 3. This Information Disclosure Statement is being filed after the mailing date of a final action, Notice of Allowance or an action that otherwise closes prosecution, but before payment of the Issue Fee. Applicant(s) hereby request(s) that the Information Disclosure Statement be considered. Please debit Deposit Account No. 11-0600 in the amount of \$180.00 in payment of the petition fee under 37 CFR §1.17(p) to ensure consideration of the disclosed information. Two duplicate copies of this paper are attached.
- ☐ a. I hereby certify that each item of information contained in this Information Disclosure Statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(1).
- ☐ b. I hereby certify that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 CFR §1.97(e)(2).
- ☐ 5. Relevance of the non-English language reference(s) is discussed in the present specification.
- ☐ 6. The reference(s) was/were cited in a counterpart foreign application. An English language version of the foreign search report is attached for the Examiner's information.

- ☐ 7. A concise explanation of the relevance of the non-English language reference(s) appears in the Appendix attached hereto.
- ☐ 8. The Examiner's attention is directed to co-pending U.S. Patent Application No. \_\_\_\_\_, filed, which is directed to related technical subject matter. The identification of this U.S. Patent Application is not to be construed as a waiver of secrecy as to that application now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited application and the art cited therein during examination of the present application.
- ☐ 9. This application is one of a series of related applications, identified in the attached Appendix, which are directed to related technical subject matter. The identification of those U.S. Patent Applications is not to be construed as a waiver of secrecy as to those applications now or upon issuance of the present application as a patent. The Examiner is respectfully requested to consider the cited applications and the art cited therein during the examination.
- ☒ 10. The reference(s) was/were cited by or submitted to the Office in parent application No. 09/747,157, filed December 21, 2000, which is relied upon for an earlier filing date under 35 U.S.C. §120. Thus, copies of these references are not attached. 37 CFR §1.98(d).
- ☐ 11. English-language Abstracts of the non-English language references are attached hereto.
- ☐ 12. Other.

Respectfully submitted,

KENYON & KENYON

Date: July 18, 2003

  
Fred T. Grasso  
Registration No. 43,644

<b>Notice of References Cited</b>	Application/Control No. 09/747,157	Applicant(s)/Patent Under Reexamination CRANK ET AL.	
	Examiner HYDER ALI	Art Unit 3747	Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,285,903 B1	09-2001	Rosenthal et al.	600/424
	B	US-4,434,822 A	03-1984	Bellamy et al.	141/114
	C	US-4,279,252 A	07-1981	Martin, Michael T.	378/163
	D	US-5,674,192 A	10-1997	Sahatjian et al.	604/28
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

**FOREIGN PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

**NON-PATENT DOCUMENTS**

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

**Notice of References Cited**

Application/Control No.

09/747,157

Applicant(s)/Patent Under  
Reexamination  
CRANK ET AL.

Examiner

HYDER ALI

Art Unit

3747

Page 1 of 1

**U.S. PATENT DOCUMENTS**

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-6,464,693 B1	10-2002	Andrews et al.	606/15
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Substitute for form 1449A/PTO

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Sheet	1	of	1
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**Complete if Known**

Application Number	09/747,157
Filing Date	December 21, 2000
First Named Inventor	J. CRANK et al.
Group Art Unit	3731
Examiner Name	H. Ali
Attorney Docket Number	12013/61101

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**Examiner  
Signature**

Date  
Considered

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

**Burden Hour Statement:** This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231**

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**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

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Sheet

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of

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**Complete if Known**

Application Number	09/747,157
Filing Date	December 21, 2000
First Named Inventor	J. CRANK et al
Group Art Unit	3731
Examiner Name	H. Ali
Attorney Docket Number	12013/61101

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Annex Form PCT/ISA/206, Communication Relating to the Results of the Partial International Search for PCT/US 01/48839	

Examiner  
SignatureDate  
Considered

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449A/PTO

(use as many sheets as necessary)

Sheet	1	of	1
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**Complete if Known**

Application Number	09/747,157
Filing Date	December 21, 2000
First Named Inventor	J. CRANK et al.
Group Art Unit	3731
Examiner Name	Not yet assigned
Attorney Docket Number	12013/61101

## U.S. PATENT DOCUMENTS

[illegible]

**FOREIGN PATENT DOCUMENTS**

[illegible]

Examiner  
Signature

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04.

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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<b>FORM PTO-1449</b>  LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 1001.1429101		Serial No.: 09/747,157
	Applicant: Crank et al.		
	Filing Date		Group Art:
	December 21, 2000		3731

### U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
AA	4,760,131	07/26/88	Sundsmo et al.	530	356	
AB	4,790,311	12/13/88	Ruiz	128	303.1	
AC	4,896,671	01/30/90	Cunningham et al.	128	642	
AD	5,047,026	09/10/91	Rydell	606	48	
AE	5,093,877	03/03/92	Aita et al.	385	34	
AF	5,261,889	11/16/93	Laine et al.	604	164	
AG	5,287,861	02/22/94	Wilk	128	898	
AH	5,358,485	10/25/94	Vance et al.	604	22	
AI	5,364,393	11/15/94	Auth et al.	606	34	
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AK	5,380,316	01/10/95	Aita et al.	606	7	
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	AV	5,672,174	09/30/97	Gough et al.	606	41	
	AW	5,681,308	10/28/97	Edwards et al.	606	41	
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	BA	5,713,894	02/03/98	Murphy-Chutorian et al.	606	15	
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	BD	5,810,836	09/22/98	Hussein et al.	606	108	
	BE	5,871,495	02/16/99	Mueller	606	185	
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		Document No.	Date	Country	Class	Sub Class	Translation Yes No
	BL	WO 96/35469	11/14/96	PCT			
	BM	WO 96/39963	12/19/96	PCT			
	BN	WO 97/18768	05/29/97	PCT			
	BO	WO 97/29803	08/21/97	PCT			
	BP	WO 97/32551	09/12/97	PCT			
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	BS	WO 98/16157	04/23/98	PCT			
	BT	WO 98/17186	04/30/98	PCT			
	BU	WO 99/22655	05/14/99	PCT			
	BV	WO 00/15146	03/23/00	PCT			
	BW	WO 00/16704	03/30/00	PCT			
	BX	DE 296 09 350 U 1	10/10/96	Germany			Yes
	BY	DE 195 37 084 A 1	04/10/97	Germany			Yes

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	BZ	Mirhoseini et al., Abstract entitled "Transventricular Revascularization by Laser", <u>Lasers in Sugery and Medicine</u> , 2(2), 1982, 1 page.
	CA	Gal et al., Abstract entitled "Analysis of Photoproducts Free Radicals and Particulate Debris Generated...", <u>Lasers in Surgery and Medicine</u> , 11(2) 1991, 1 page.
	CB	Isner, J., Abstract entitled "Right Ventricular Myocardial Infarction", <u>JAMA</u> , v259, n5, February 5, 1988, 12 pages.
	CC	Pickering et al., Abstract entitled "Proliferative Activity in Peripheral and Coronary Atherosclerotic Plaque....", <u>J. Clin. Invest.</u> , ISSN 0021-9738, April 1993, 1 page.
	CD	Vineberg et al., "Création of Intramyocardial Pathways to Channiel Oxygenated Blood Between Ventricular Arteriolar Zones", <u>Canad. Med. Ass. J.</u> , Vol. 96, February 4, 1967, 3 pages.
	CE	Vineberg, A., "Results of 14 Years' Experience in the Surgical Treatment of Human Coronary Artery Insufficiéncy", <u>Canad. Med. Ass. J.</u> , Vol. 92, February 13, 1965, 8 pages.
	CF	Vineberg et al., "The Ivalon Sponge Procedure for Myocardial Revascularization", <u>Surgery</u> , Vol. 47, No. 2, February 1960, pp. 268-289.
	CG	Vineberg et al., "Treatment of Acute Myocardial Infarction by Endocardial Resection", <u>Surgery</u> , Vol. 57, No. 6, June 1965, pp. 832-835
	CH	Walter et al., "Treatment of Acute Myocardial Infarction by Transmural Blood Suply from the Ventricular Cavity", <u>European Surgical Research</u> , 3:130-138 (1971).
	CI	Khazei et al., "Myocardial Canalization", <u>The Annals of Thoracic Surgery</u> , Vol. 6, No. 2, August 1968, pp. 163-171.
	CJ	Hershey et al., "Transmyocardial Puncture Revascularization", <u>Geriatrics</u> , March 1969, pp. 101-108.
	CK	Press Release dated October 21, 1996, "Doctor's Demonstrate Proof of Blood Flow Through Open TMR Channels Created with PLC Systems...", 1 page.
	CL	Press/News Release dated October 10, 1996, "Texas Fieart Institute Presents Study Comparing the Use of CO2...", 1 page.
	CM	Goldman et al., "Nonoperative Portacaval Shunt in Swine", <u>Investigative Radiology</u> , Vol. 25, No. 5, May 1990, 5 pages.
	CN	Schumacher et al., "Induction of Neoangiogenesis in Ischemic Myocardium by Human Growth Factors", <u>Clinical Investigation and Reports</u> , December 1, 1997, 6 pages.
	CO	Article entitled "Gene therapy improves leg circulation--next step heart?", 70 <sup>th</sup> Scientific Sessions, published on or before November 2, 1998, 2 pages.
	CP	Winslow, R., "Genetic Techniques Succeed in Treating Patients with Obstructed Blood Vessels", <u>The Wall Street Journal</u> , published on or before November 2, 1998, 2 pages.

	CQ	Kolata, G., "Gene Therapy Gives Blood a Path Around Leg Blockages, Researchers Say", <u>The New York Times</u> , November 10, 1997, 2 pages.
	CQ	Mack et al., "Cardiopulmonary Support and Physiology", <u>The Journal of Thoracic and Cardiovascular Surgery</u> , Vol. 115, No. 1, January, 1998, 10 pages.

EXAMINER:

DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.